



**Sommersemester 2021**

**Oberseminar  
Geometrische Analysis, Differentialgeometrie und Relativitätstheorie**

Am Donnerstag, den **08.07.2021** spricht um **14:00** per Videoübertragung

**Dr. Hyun Chul Jang**  
( University of Miami )

über das Thema

**Hyperbolic mass via horospheres**

Asymptotically hyperbolic (AH) manifolds arise naturally in general relativity as a spacelike hypersurface in an asymptotically Minkowski spacetime or an asymptotically AdS spacetime. The mass of AH manifolds is a geometric invariant that measures its deviation from hyperbolic space. In this talk, we present a mass formula using large coordinate horospheres. The formula is stated as a limit of the (weighted) difference of total mean curvatures on large coordinate horospheres. We remark a few geometric implications of the formula including scalar curvature rigidity of AH manifolds. This talk is based on joint work with P. Miao.

**Hierzu wird herzlich eingeladen. Bei Interesse bitte per E-Mail an [angelika.spoerer-schmidle@uni-tuebingen.de](mailto:angelika.spoerer-schmidle@uni-tuebingen.de) wenden, um den Link zur Videoübertragung zu erhalten.**

Hierzu wird herzlich eingeladen.

C. Cederbaum, G. Huisken, K. Kröncke